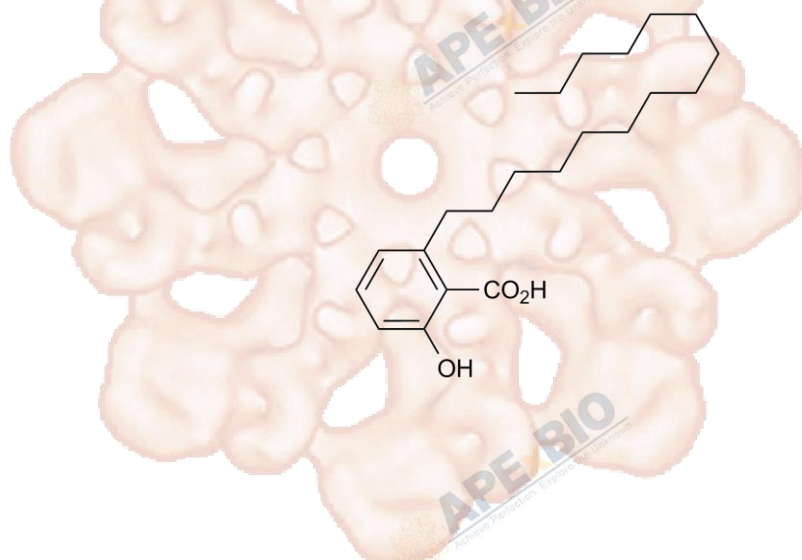


# Product Data Sheet

## Anacardic acid

<b>Cat. No.:</b>	A4488
<b>CAS No.:</b>	16611-84-0
<b>Formula:</b>	C <sub>22</sub> H <sub>36</sub> O <sub>3</sub>
<b>M.Wt:</b>	348.52
<b>Synonyms:</b>	
<b>Target:</b>	Chromatin/Epigenetics
<b>Pathway:</b>	Aurora Kinase
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in H<sub>2</sub>O; ≥17.45 mg/mL in DMSO; ≥83.8 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.8693 mL	14.3464 mL	28.6928 mL
	<b>5 mM</b>	0.5739 mL	2.8693 mL	5.7386 mL
	<b>10 mM</b>	0.2869 mL	1.4346 mL	2.8693 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

HAT inhibitor

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line:	LNCaP cells
Preparation method:	The solubility of this compound in DMSO is >17.5 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	25 and 125 μmol/L

	Applications:	In LNCaP cells, Anacardic acid (AA) significantly inhibited cell proliferation. Anacardic acid induced G1/S cell cycle arrest of LNCaP cells. Cells at G0 /G1 stages sharply increased after treating LNCaP cells with 125 µmol/L Anacardic acid for 24 hours. The proportion of late apoptotic cells at 24 hours following Anacardic acid incubation increased significantly. Anacardic acid down-regulated AR through suppressing p300. Anacardic acid up-regulated p53 through phosphorylation of p53 on Ser15.
In Vivo	<b>Animal experiment</b>	
	Animal models:	BALB/c mice with diesel exhaust particle- (DEP-) induced lung inflammation
	Dosage form:	Oral administration, 50, 150, or 250 mg/kg, 30 days
	Applications:	In a mice model of diesel exhaust particle- (DEP-) induced lung inflammation, pretreatment with 50, 150, or 250 mg/kg of anacardic acids (p.o.) for 30 days ameliorated antioxidant enzyme activities and decreased vascular adhesion molecule in vessels. Animals that received 50 mg/kg of anacardic acids showed decreased levels of neutrophils and tumor necrosis factor in the lungs and BALF, respectively.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Tan J, Chen B, He L, et al. Anacardic acid (6-pentadecylsalicylic acid) induces apoptosis of prostate cancer cells through inhibition of androgen receptor and activation of p53 signaling[J]. Chinese Journal of Cancer Research, 2012, 24(4): 275-283.
- [2]. Carvalho A L N, Annoni R, Torres L H L, et al. Anacardic acids from cashew nuts ameliorate lung damage induced by exposure to diesel exhaust particles in mice[J]. Evidence-Based Complementary and Alternative Medicine, 2013, 2013.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for

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long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



**APEx BIO Technology**

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